The Wool Colours

of the

Farbenfabriken

vorm. Friedr. Bayer & Co.

Elberfeld.

D. R. G. M. 261741.

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FRIEDR. BAYER & CO.

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No. 1143, 1907.

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Directions for dyeing.

1. Acid Wool Colours.

Dye as a rule with the addition of 10—15% Glauber's salt crystals and 2—5% sulphuric acid. When dyeing fashion shades with colours that dye **easily level**, the shading can even be done in a boiling bath.

The Rhodamines are dyed with the addition of 5% Glauber's salt and 1½% sulphuric acid or 5% acetic acid. They produce the clearest tones when dyed at a temperature of 195—200° Faht.

The Eosines are dyed just under the boil with the addition of 5% acetic acid. Very clear shades can be obtained by treating the goods for ½ hour at the boil with 5% alum, 5% tartar and 5% acetic acid, then allow the bath to cool down to 100° Faht., add the colour and dye for ¼ hour under the boil, and for another ¼ hour at the boil. (Goods dyed according to this latter process, however, become much harder and more brittle).

2. Basic Colours.

Dye at 180—190° Faht. in a neutral bath or if the water is calcareous with the addition of 1—2% acetic acid; the addition of acetic acid tends to produce more level shades.

* **Victoria Blue B** is generally dyed acid with the addition of 10% Glauber's salt and 2—4% sulphuric acid or about 5% acetic acid.

Methyl Violets are also often dyed acid, but with slightly less sulphuric acid than is necessary for Victoria Blue B.

3. Alkali Blues.

Dye at the boil with the addition of ½—1% soda ash or 3% borax, and develop in a fresh bath containing boiling water and 5% sulphuric acid.

4. Benzidine Colours.

Dye with the addition of 2—3 % acetate of ammonia or 10—20 % Glauber's salt and 1—2 % acetic acid; enter the goods at 80—100° Faht., bring slowly to the boil, and boil until the bath is exhausted. When adding 1—2 % acetic acid in order to exhaust the bath better, it is advisable to do so without the admission of any steam.

5. Sulphon Colours.

Sulphon Cyanines are dyed with the addition of 3—5 % acetate of ammonia, and if necessary 5—10 % Glauber's salt crystals. Enter the goods at 100—120° Faht., bring slowly to the boil and boil until the bath is exhausted. If the bath does not exhaust well, add carefully a little acetic acid.

The other Sulphon colours are generally dyed with the addition of 10—20 % Glauber's salt crystals and 2—3 % sulphuric acid; if it is necessary to completely exhaust the bath, add 1—2% acetic acid or a very slight amount of sulphuric acid.

6. Alizarine and Mordant Colours dyed on a chrome mordant.

According to the depth of shade required treat the goods with 1—4 % bichrome and ¾—3½ % tartar*), entering the material just under the boil, and then allow to boil for 1—2 hours. Dye with the addition of 2—5 % acetic acid; enter the goods at about 100° Faht., bring slowly to the boil and allow to boil until the bath is nearly or completely exhausted. Occasionally a slight amount of acetic acid is added in order to exhaust the bath better. In dyeing light fancy shades it is advisable to sometimes add 10—15 % Glauber's salt to the dye bath, in order to produce more level shades. Many mordant colours, dyed on a chrome mordant, are rendered faster to milling when after-treated with a slight amount of bichrome.

7. Alizarine and Mordant Colours after-chromed.

It is best to enter the goods at 120—140° Faht. and dye with the addition of 2—4 % acetic acid, bring slowly to the boil and if the bath does not exhaust completely, add a little more acetic or sulphuric acid. When dyeing light fancy shades it is sometimes advisable to also add 10—20 % Glauber's salt, which produces more level shades.

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*) Lactic acid, lactoline and lately also formic acid are often employed instead of tartar; special directions for use are published by the manufacturers of the respective mordants.

□ In dyeing **Acid Anthracene Browns** add to the bath $^1/_2$—2% sulphuric acid in order to exhaust same. Afterwards treat in the same or in a fresh bath with bichrome for 30—40 minutes. As a rule the bath should be allowed to cool down to 160—180° Faht., but often it is merely sufficient to turn off steam. For light shades take usually half as much bichrome as colour employed, and for dark shades not more than 2—2$^3/_4$% should be employed.

⁂ The **Diamond Blacks 2 B, F, etc.**, should be after-chromed with only 1—1$^1/_2$% bichrome, whereas the Diamond Black P brands (in dark shades) should be after-treated with 2—2$^3/_4$%.

†† The **Diamond Black P brands** are dyed at the boil for 15-20 minutes with 2$^1/_2$% acetic acid, then add 2$^1/_2$% sulphuric acid, boil for another 15—20 minutes and allow to fill up for another $^1/_2$ hour **without steam.** By allowing the shade to fill up without steam the bath is exhausted better, and, of course, the temperature of the bath is reduced, so that it is not necessary to cool down before after-chroming. When dyeing in copper vessels it is advisable to add a little sulphocyanine of ammonia (about 1 oz. for 25 gallons).

Acid Chrome Black WS 23250 is dyed on woollen cloth containing silk effects as follows: Add 10% acetic acid to the dyebath, boil for $^1/_2$ hour, add another 5—10% acetic acid and finally treat for $^3/_4$ hour at the boil in a fresh bath with the addition of 3% bichrome and 3—5% acetic acid.

Acid Wool Colours.

† *) Chinoline Yellow

is the greenest of all the Acid Yellows. It dyes very easily level, is fast to stoving, fairly fast to light and stands a moderate washing. The colour is chiefly employed for shading fancy shades, as well as a combination colour with New Patent Blue or Brilliant Acid Green 6 B for the production of bright, yellowish greens, e. g. for the dyeing of billiard cloth: Chinoline Yellow is also employed for the dyeing of silk; cotton checking threads are not tinged.

† *) Fast Yellow extra

dyes very easily level, has more tinctorial power and is possessed of far better fastness to light than Chinoline Yellow.

It is chiefly employed as a combination colour for the dyeing of olive and brown shades on yarns and piece goods. Silk and cotton checking threads are left white.

† * Fast Light Yellow G, 2 G and 3 G

dye very easily level and are superior in fastness to light to any other Acid Yellow; they are therefore particularly employed for yarns very fast to light and piece goods, such as ulpholstery cloth, ladies' dress material and gentlemen's suitings (even with cotton checking threads). The 3 G brand dyes silk but very slightly, but the G and 2 G are used for solid shades on silk-unions (wool and silk).

† Indian Yellow G and R, Metanil Yellow, † Naphtole Yellow S*), New Yellow extra

are cheap and very productive dyestuffs, suitable as combination colours for dark shades on yarns and piece goods, which have not to be particularly fast to washing and light.

The Indian Yellows are extensively employed for the dyeing of solid shades on silk and silk-unions. They dye the wool well in a neutral bath, and are therefore very well adapted for shading half-woollen goods dyed in one bath. Metanil Yellow is also very well suited for the dyeing of paper.

Naphtole Yellow S does not dye cotton, and by resorting to the proper and suitable method of dyeing, leaves the silk in silk-unions white.

*) Those colours or groups of colours marked with an asterisk are occasionally employed for wool printing.

† *) Tartrazine

is remarkable for its productiveness, clear shade, fairly good fastness to washing, and good fastness to stoving and light. It is employed instead of Flavine for the dyeing of yellow flannels, as well as a combination colour for yarns and piece goods: it is furthermore suited for the shading of mordant colours. Cotton and silk effects (in silk-unions) are not tinged.

*) Croceine Orange G and R

are cheap colours which cover well, and are employed for the dyeing of self shades for export goods or as a combination colour on yarns and pieces. Croceine Orange G is generally employed for cotton dyeing.

† *) Fast Light Orange G

is the fastest to light of the group of Orange colours, and comes chiefly into consideration for the dyeing of fancy shades on Berlin woo and piece goods (ladies' dress material and gentlemen's suitings).

Cotton checking threads remain perfectly white, and the colour in this respect is even better than the well known Orange II B.

† Mandarine G, † Orange II B*) and † R O.

Orange II B is fairly fast to light and is extensively employed for the dyeing of yarns and piece goods which need not be particularly fast to washing.

Orange R O produces a much redder tone, and has the advantage that in combination with other colours the shade does not appear so greenish in artificial light as Orange II B does.

Orange R O dyes the wool extremely well even in a neutral bath, so that it has become a very popular colour for shading half-woollen goods.

Mandarine G is one of the oldest dyestuffs of the group of Orange colours and is employed as a combination product for Browns; it is furthermore extensively employed for the dyeing of orange gold shades on silk.

*) Azo Bordeaux, Azo Cochineal, Azo Eosine

are employed for the dyeing of bright Reds and Bordeaux shades on yarns and piece goods (ladies' dress material), which have not to be particularly fast to washing. Azo Cochineal and Azo Eosine are possessed of very good fastness to stoving. Azo Eosines are often employed for the production of colour lakes. Azo Cochineal when dyed according to a suitable method scarcely tinges the silk in silk-unions.

†*) Azo Fuchsine 6 B, G, S and † Azo Crimson S

dye very easily level in a boiling bath even when employing small percentages of colour. They are chiefly employed on account of their excellent fastness to light as combination colours for the dyeing of ladies' dress material and gentlemen's suitings.

Azo Fuchsine 6 B (which is employed for shading Navy Blues), and Azo Crimson S are also fast to steaming: both colours are remarkably fast to alkalies and the shades of these products are not altered by the action of chromic or alumina salts. Azo Fuchsine 6 B is also fairly fast to washing.

The above mentioned colours are extremely well adapted for two coloured effects on silk-unions, as the silk is not tinged; cotton checking threads in woollen pieces are also not dyed. Azo Fuchsine G is especially suited as a combination colour (after-chromed) for the dyeing of Blacks on silk-unions, if the checking threads are to remain white.

†*) Azo Phloxine 2 G

dyes easily level producing very bright shades possessed of excellent fastness to light, and is adapted, like the Azo Fuchsines and Azo Crimson S for the dyeing of silk-unions and woollen pieces containing cotton checking threads. The colour is used also for the dyeing of yarns for fancy woven goods, etc.

***) Brilliant Croceine 3 B, Brilliant Double Scarlet 3 R**

dye easily level when employing 2—3% colour. They are extensively used for the dyeing of Scarlets on yarns and piece goods (chiefly on flannel goods for export).

Brilliant Double Scarlet 3 R is distinguished for its good fastness to stoving and especially for its great tinctorial power.

Brilliant Croceine 3 B is extensively employed in paper dyeing and for the production of colour lakes.

***) Carmoisine B**

is possessed of good fastness to light, and is used for the dyeing of Bordeaux shades on yarns and piece goods.

***) Cochineal Scarlet P S**

is very fast to light, and is employed instead of Cochineal for piece goods and yarns which have to be fast to light but need not be particularly fast to washing. The colour is also well adapted for the dyeing of silk-unions, in which the silk has not to be tinged.

***) Croceine Scarlet 1 B X, 2 B X, 3 B X, R and R X**

are extensively employed on account of their low price for the dyeing of Berlin wool and light piece goods (flannels for export).

***) Double Ponceau 1R, 2R, 3R and 4R**

merely differ from the above mentioned colours in their bluer tone and greater tinctorial power; they are used in self shades as well as for shading clarets; the colours stand stoving very well.

***) Fast Red A, E and NS**

are the cheapest and most popular colours for the dyeing of Bordeaux shades on yarns, ladies' dress material, flannels push goods, felts, blankets, etc. which need not be particularly fast to washing.

† Fast Acid Magenta B

is chiefly employed in combination with greens for the production of Navy Blues on yarns and piece goods, as it is extremely fast to alkalies.

***) Eosine I bluish, I yellowish, S extra bluish and S extra yellowish.**

The Eosines are employed for the dyeing of very pale pinks on Berlin wool and light piece goods (flannels), but mostly for such articles as feathers, paper, corozo- and horn buttons, etc.

New Red 3R and 5R

are important colours for the dyeing of piece goods for export.

***) Ponceau HP, 1R, 2R, 3R and 2RL**

are the most popular of the Ponceau brands, and are chiefly used for the dyeing of Berlin wool, and piece goods, such as crepons, muslins and flannels for export. Considering the productiveness of Ponceau HP it is a very cheap colour; the HP and the 2RL brands are also fast to stoving.

† *) Rhodamine B and G.

The Rhodamines are the principal colours for the dyeing of pale to fiery Pinks on yarn and piece goods. Yarns dyed with such colours are employed for goods that have to stand washing and a fair amount of milling, such as table covers, costume cloth, blouses as well as for selveges in white piece goods which are subjected to stoving; they are also used for dyeing flannels. Bright Ponceau shades are obtained by dyeing with an admixture of an Orange, and buff shades in conjunction with Chinoline Yellow. The Rhodamines dye the wool in half-woollen goods very well in a neutral bath, and are also very useful colours for dyeing pink shades on silk or in combination with an Orange for fiery Scarlets.

Scarlet Orange R and Imperial Scarlet 3 B.

Imperial Scarlet 3 B is remarkable for its great productiveness and Scarlet R for its pure fine yellowish tone; both products are employed for the same purposes as the Ponceau brands.

Acid Magenta

dyes a clear bluish red. As the shades are fast to rubbing Acid Magenta is often employed instead of Diamond Fuchsine for Magenta shades or for the shading of Bordeaux and claret shades on piece goods. (Linings for galosches). Cotton checking threads are not tinged, and the colour is furthermore adapted for the dyeing of silk.

†*) Alkali Fast Green B, 3 B, G and 3 G

are bright greens fast to alkalies, particularly adapted for the dyeing of yarns which have to stand a slight washing and milling, as well as for different kinds of piece goods containing cotton checking threads. These colours are employed in conjunction with Acid Violets for the dyeing of cheap navy and dark blues. As they also resist the action of chrome they are useful colours for shading mordant dyestuffs.

†*) Brilliant Acid Green 6 B

is very well adapted for goods that have to stand a moderate milling; it can be after-chromed whereby the fastness to milling is improved. This colour is employed for the dyeing of loose wool and shoddy for blankets, etc. and for yarns and costume cloth as well as in some cases for gentlemen's suitings (checking threads in buckskin) and furthermore for shading mordant colours. Cotton checking threads dyed in an acid bath are not tinged. The colour dyes the wool well in a neutral bath and it is therefore used in conjunction with Benzidine colours for the dyeing of half-woollen goods; it is also a valuable product for the dyeing of silk.

†*) Fast Green bluish, extra, † extra bluish, C R and † Fast Light Green.

With the exception of Fast Green extra and C R the colours dye easily level, are very fast to alkalies and their fastness to light is superior to that of the Acid Greens (The Fast Light Green being the best in this respect). Fast Green C R and extra are possessed of good fastness to washing and milling. These Greens are employed for the dyeing of Berlin woollen yarns and worsteds as well as for costume cloth, and in combination with other colours for the dyeing of art shades, greens, olives and navy blues.

Fast Green C R is very well adapted for the dyeing of chromed or after-chromed goods; furthermore for the dyeing of half-woollen goods in one bath, as in a neutral bath containing Glauber's salt crystals the wool is dyed well. It is also used for the dyeing of shoddy.

Parrot Green, Acid Green B B, 3 B, 6 B *), G B extra, G G extra. *)

As mentioned above, these greens are not so fast to light as the Fast Greens, but they possess excellent level dyeing properties. Although not fast to alkalies, they are extensively employed for piece dyeing, on account of their low price. They are chiefly employed in combination with Acid Violet and Acid Magenta for dyeing navy and dark blues. They are furthermore much employed for the dyeing of jute, silk, feathers, etc.

† *) Wool Green B S

ranks among those greens possessing the best fastness to light and is chiefly used as a combination colour for the dyeing of olives, dark greens, dark browns and navy blues on Berlin wool and pieces (costume cloth) as well as for cheap qualities of gentlemen's suitings.

† *) Alizarine Blue A S

is a pure Alizarine colour possessing the best level dyeing property, extraordinary fastness to light and good fastness to milling (after-chromed). On account of its excellent properties this colour is chiefly used as a blue combination colour for the dyeing of greenish fancy shades fast to light on yarn and ladies' costume cloth and gentlemen's suitings; it has also proved very serviceable for the dyeing of fancy shades. It is furthermore adapted for dyeing fashion shades on silk fast to light. Silk unions (wool and silk) are dyed a uniform shade; cotton is not dyed.

Alizarine Emeraldol G

is also an Alizarine dyestuff which is dyed acid and is especially valuable as a combination colour for dyeing shades fast to light on yarns and costume cloth. The shades possess good fastness to washing, stoving and steaming and will stand a moderate milling. When after-treated with fluoride of chrome the shade turns greener, an after-treatment with bichrome rendering the shade more olive.

† *) Alizarine Blue S A P, S A C, S A E.

The remarks concerning Alizarine Astrole B equally apply to the Alizarine Sapphiroles. Their fastness to light is far superior to any other colour, and they are employed for goods which have to stand washing and slight milling, more especially, however, for the dyeing of costume cloth and gentlemen's suitings and to a large extent as a blue combination product for fancy shades. By combinations, pearl shades can be obtained on yarn similar to those produced with Indigo. They are also very well adapted for the shading of mordant colours, and like Alizarine Astrol are of equal interest for the dyeing of silk. The „B" brand is suited for dyeing silk-unions in which the silk has to remain white.

† Anthra Cyanine BL, DL, FL, 3FL.

The Anthra Cyanines dye easily level, producing medium and navy-blues possessed of good fastness to light. They are chiefly employed for the dyeing of pieces (also with white cotton checking threads), but they are also adapted for the dyeing of yarns which have to stand a slight washing. On account of their good level dyeing property they are adapted (especially the 3FL brand) as blue combination products for fancy and other shades.

† *) Azo Acid Blue 6B

is adapted for the dyeing of bright medium and navy blues on Berlin wool and pieces (costume cloth, flannels, etc.). In medium and dark shades it dyes very easily level and leaves cotton white.

*) Alizarine Blue BR3G

is extraordinarily fast to light, and when dyed in a weak acid bath it dyes easily level. It is often employed for fashion shades on pieces which are required to possess excellent fastness to light. The shades dyed in a acid bath, however, are affected by alkalies (for fastness to milling see under „Alizarine and Benzidine colours.").

*) Brilliant Wool Blue B extra, G extra

produce extremely bright shades of good fastness to milling. Both brands are used as substitutes for Alkali Blues and Victoria Blues for the dyeing of Berlin-, knitting-, blanket- and worsted yarns (for fancy woven goods), as well as for costume cloth and flannels. In dark shades they are considerably faster to rubbing than the Alkali Blues and Victoria Blues. Owing to their comparatively good fastness to milling they are furthermore adapted for the dyeing of loose wool and slubbing where such material is not required to possess particular fastness to light. The colours go on to the wool very well in a neutral bath containing Glauber's salt (for the dyeing of half-wool with Benzidine colours) and are also adapted for the dyeing of silk-unions. These colours on silk are considerably faster to rubbing than the Victoria Blues.

† *) Fast Acid Blue B, Intensive Blue.

These colours dye remarkably level and yield clear blues which alter very little in artificial light. The shades are very fast to alkalies besides being remarkably fast to washing. They are employed for the dyeing of woollen yarns and pieces, silk and jute, as well as for printing clear navy blues on wool.

† *) Cashmere Blue TG extra

is chiefly remarkable for its great covering power. It dyes easily level and possesses good fastness to light in dark shades. It is chiefly employed in conjunction with Acid Violet (e. g. 4B extra) for the dyeing of ladies' dress material; cotton checking threads are not tinged.

*) For discharge printing employ Azo Acid Blue 6B 23108.

Navy-blue

is employed for dyeing navy-blues on pieces for costume cloth.

† *) New Patent Blue B, 4 B, G A.

The New Patent Blues belong to the greenish blue colours which dye easily level. They are employed for dyeing knitting-, Berlin- and worsted yarns, as well as for ladies' dress material, and furthermore for billiard cloth and as combination products for fancy shades, olives, greens, browns, etc. These colours (especially G A) are also employed for brightening mordant dyestuffs.

Red Blue extra conc.

is a very productive, cheap, clear, violet blue, employed for dyeing yarns and pieces (shoddy) which do not require to be very fast to washing, but it is chiefly used for the dyeing of silk. It is employed for the dyeing of wool, as well as for brightening Logwood shades, the colour being added direct to the mordanting bath.

† Victoria Navy Blue B, D K

dye very easily level and are fairly fast to alkalies. They are almost exclusively used for the dyeing of ladies' dress material (also with cotton checking threads); the D K brand is remarkable for its excellent fastness to steaming.

Soluble Blue I greenish

As regards the application of this colour see remarks under Red Blue extra conc.

*) Wool Blue N extra, R extra

are employed like the Brilliant Wool Blues, for the dyeing of wool, shoddy, slubbing and yarns which are required to stand only a moderate milling, as well as for brightening Alizarine and Indigo colours fast to milling. They are much employed for the dyeing of half-woollen pieces in one bath (also for two colour effects), as when dyed in a neutral bath the colour goes on to the wool well. Cotton is not tinged.

*) Wool Blue S R extra

differs from the above mentioned Wool Blues by reason of its darker shade and cheaper price. It is especially employed for bright Navy-blues. Cotton checking threads in woollen pieces are not tinged. The properties of the colour are similar to those of the above Wool Blue brands.

Wool Fast Blue B L

is a reddish blue dyestuff possessed of extraordinary fastness to light. Wool Fast Blue has the remarkable property, that, when dyed on a chrome mordant or when after-chromed, the shade is practically the same as when dyed direct. It is serviceable for dyeing yarns which have to be fast to washing, as well as for ladies' dress material and gentlemen's suitings (either with or without cotton checking threads) which have to be fast to light. The reddish tone appearing in artificial light, can be removed by dyeing with a little Brilliant Acid Green 6 B. The wool is also dyed extremely well in a neutral bath, so that it is adapted for dyeing half woollen goods in combination with our Benzidine colours. The colour is furthermore employed for the dyeing of silk-unions (wool and silk) in one bath.

† *) Alizarine Blue I R.

Alizarine Irisole R can be employed alone for the production of violet, lilac and heliotrope shades possessed of very good fastness to light, much faster than can be obtained with other dyestuffs of a similar shade, or as a combination colour, especially with Alizarine Sapphirole and Fast Light Yellow which are likewise extremely fast to light. On account of its susceptibility to chrome it cannot be employed as a shading colour for mordant colours.

Alkali Violet R, L R

possess very good fastness to alkalies and are chiefly employed for the brightening of loose wool, shoddy and yarn (blankets, rugs, flannels and fancy woven articles) which have to stand only a moderate milling without bleeding into white. They are also very much employed for half-wool, as when dyed in a neutral bath the colours go well on to the wool. The L R brand is the more easily soluble.

† Azo Acid Violet A L, B extra, R extra, 4 R

are the cheapest, most popular, reddish violets possessed of good level dyeing properties and fastness to light. They are employed for yarns which need not be very fast to washing and in combination with greens for navy-blues especially for the dyeing of pieces. By a combination of the A L brand with Orange II B or Fast Light Orange G a bright claret shade is obtained, white cotton checking threads remaining a pure white.

† *) Fast Acid Violet 10 B

is a clear bluish violet dyeing very easily level and possessed of rather good fastness to washing. It has the advantage, that the shade does not change to the red side in artificial light. It is chiefly employed as a shading colour for the dyeing of yarns and pieces with or without cotton checking threads.

*) Acid Violet B W, † 3 B extra, 4 B extra, 5 B.

These dyestuffs are used especially for the shading of various navy-blue tones on piece goods on account of their good level dyeing property. The 4 B brand is the most popular and is adapted for dyeing goods which have to stand a fairly severe milling test, as well as for the dyeing of loose wool, shoddy and furthermore for yarns for blouse and dress material. The 4 B extra is also serviceable as a shading colour on an Alizarine dyed bottom (previously mordanted or after-chromed). The B W brand is very easily soluble in an acid liquor, so that no bronzy precipitant is formed.

*) Acid Violet 6 B N extra, 8 B extra, H W, 3 R, 4 R S, Victoria Violet 4 B S.

All the Acid Violets are used for the dyeing of Berlin-wool and knitting-yarns, as well as for flannels; also as combination colours with green for the production of navy-blues on ladies' dress material, etc. with or without cotton checking threads. The 3 R brand stands a moderate milling and is therefore employed for the dyeing of loose wool, shoddy (for the manufacture of blankets) and worsted yarn for fancy woven goods. The H W dyes the wool well in a neutral bath and is therefore much employed as a shading colour for the dyeing of half-woollen goods in one bath.

† Cashmere Brown V

dyes exceedingly level, is possessed of good fastness to washing, stoving and steaming. It is chiefly employed in combinations with yellows for the dyeing of brown shades on yarn and ladies' dress material.

† Cashmere Black B, 6 B, 3 B N, T, T N*).

The Cashmere Blacks are used for dyeing ladies' dress material, such as cheviots, Cashmere, muslin, crepons and hosiery goods. The 3 B N and T N brands are especially remarkable for their excellent level dyeing property and good fastness to light. The 3 B N brand produces very similar shades to that of Logwood, the T N brand yielding shades deeper and fuller in tone. All the brands are fast to rubbing and do not tinge cotton checking threads.

Naphthaline Acid Black 4 B

is employed for the dyeing of costume cloth and cheap qualities of gentlemen's suitings and especially for the dyeing of half-wool, as it dyes the wool extremely well in a neutral bath containing Glauber's salt. In combination therefore with our Pluto- and Direct Deep Blacks very fine, uniform black shades are obtained. In silk dyeing it is chiefly used for plain shades.

Naphtylamine Black 4 B, 4 B K, 6 B, S

are very popular acid blacks for costume cloth and gentlemen's suitings; besides dyeing very easily level they possess good fastness to light. These colours are furthermore employed (especially 6 B) for the dyeing of Berlin-wool, knitting- and sometimes worsted yarns, where no particular fastness to washing is required. The 4 B K and S brands do not tinge white cotton checking threads. The 4 B and 6 B brands go on to the wool well (half-woollen material) in a neutral bath, so that for this purpose they can be employed in the same way as Naphtylamine Acid Black 4 B: The 4 B brand is also very well adapted for the dyeing of silk unions (wool and silk). The 4 B K and S brands are excellently well adapted for hat-dyeing.

New Victoria Black Blue

is a black very fast to light, which can be dyed alone or in combination with Victoria Black, as well as in conjunction with Logwood (in one bath), on piece goods.

Phenylamine Black 4 B, T.

The 4 B brand produces a fine black with a bluish cast, the T brand a deep black. The shades possess good fastness to steaming, stoving and fairly good fastness to milling. They are chiefly employed for the dyeing of piece goods. The 4 B brand is especially serviceable for dyeing knitting-yarn on account of its good fastness to washing. It is also a useful colour for the dyeing of half-wool, as it goes on to the wool well in a neutral bath containing Glauber's salt.

Acid Black 5 B, 8 B, 4 B L, F L, L D*)

are serviceable for dyeing costume cloth and thin gentlemen's suitings; the F L is also very well adapted for the dyeing of hats. The 4 B L, F L and L D do not tinge cotton.

***) Victoria Black B**

is an acid colour producing a black possessed of very good fastness to light. On account of its very good fastness to washing it is excellently adapted for the dyeing of all kinds of hosiery yarns as well as for good qualities of costume cloth and gentlemen's suitings, where high demands are made as regards fastness to light. It is furthermore very much employed for the dyeing of hats and silk.

Victoria Black Blue

has a fine bluish shade and possesses the same properties as Victoria Black B; it is employed for the same purposes as the latter product.

Wool Black B, 4 B, N 4 B.

These colours are also very fast to light and are chiefly employed for the dyeing of costume cloth and gentlemen's suitings. The N 4 B is also employed for the dyeing of yarns and slubbing for hosiery goods. The 4 B and N 4 B dye the wool very well in a neutral bath containing Glauber's salt (half-wool dyed in one bath).

Basic colours.

***) Auramine II**

is employed for dyeing very clear, greenish yellows on Berlin wool. It is chiefly used, however, for the dyeing of silk, cotton and half-wool, as well as for jute, paper, wood, straw, etc.

Chrysoidine cryst., Bismarck Brown F, R extra.

These colours are very productive and very cheap, and besides being slightly employed for shading wool are chiefly used for the dyeing of silk, cotton, jute, coir fibre, paper, wood, straw, leather and for the manufacture of lake colours.

***) Brilliant Rhoduline Red B, Rhoduline Red B, G, Diamond Fuchsine cryst., Saffranine F F extra.**

These colours are possessed of fairly good fastness to washing, but they are only moderately fast to light. Their utility is chiefly in the dyeing of pale pink shades (sometimes mixed with Rhodamine B) on Berlin wool and knitting yarns, as well as on flannel. They are also much employed for the dyeing of silk, cotton, jute, leather, straw, corozo- and shell buttons, as well as for the manufacture of lake colours.

***) Brilliant Green cryst., China Green cryst.**

are remarkable for their bright shades and pretty good fastness to washing. They are employed for the dyeing of yarn in exceptional cases only, although they are frequently used for the dyeing of silk, cotton and the other kinds of materials mentioned above.

***) New Victoria Blue B**

is remarkable for its extraordinary clear shade and good fastness to alkalies; it will stand rather severe milling without bleeding into white. The colour is serviceable for the dyeing of loose wool, shoddy, yarns and pieces, for brightening Indigo and Alizarine colours, and especially as a substitute for Alkali Blues. It also comes in serviceable for dyeing cotton, silk, half-wool, jute and other materials.

Those colours marked with an asterisk are used to a fair extent for cotton printing.

⁂*) Victoria Blue B

is somewhat greener in shade than New Victoria Blue B, more difficult to dissolve and not so fast to alkalies; when submitted to severe milling the shade turns green. A further drawback is, that the colour is not fast to rubbing. Like New Victoria Blue B, it is employed instead of Alkali Blues and is used for dyeing cotton (fast to cross-dyeing), silk, and the aforementioned articles.

Nigrosine B, G

are not very important colours for the dyeing of wool. They produce bluish grey tones of moderate fastness to light. In exceptional cases only are they employed for the dyeing of jute and cotton, although they are more often resorted to for the dyeing of silk (for fine grey shades). They come in useful chiefly for the manufacture of inks and lake colours.

*) Crystal Violet P

possesses an advantage over the Methyl Violets in that it does not cake when stored a long time and exposed to damp atmosphere, so that no difficulties whatever are encountered in weighing out and dissolving the colour. It is employed for the same purpose as the Methyl Violets.

*) Methyl Violet 1 B, 2 B, 3 B, 4 B, 5 B, 6 B, 7 B.

The Methyl Violets are very productive and yield extraordinary bright shades of fairly good fastness to washing. These colours scarcely rub off at all in light shades, although in dark shades they crock off rather badly, for which reason the Acid Violets may be used to advantage as substitutes, as they do not possess this drawback. On account of their fullness and brightness of shade, however, the above Violets are still employed for the dyeing of Berlin wools and worsted yarn, as well as flannels, etc., for very bright shades of no particular fastness to light.

They are chiefly resorted to for the dyeing of cotton (fast to cross-dyeing when after-treated with tannic acid), as well as for the dyeing of silk and the materials mentioned above.

*) Methyl Violets 1 R, 2 R, 3 R, 4 R, 5 R.

The only difference between these and the above brands lies in their redder shade (see above particulars).

*) Rhoduline Violet

is somewhat duller than Diamond Fuchsine, otherwise possessing all the same properties.

Alkali Blues.

*) **Alkali Blue 1 B, 2 B, 3 B, 4 B, 5 B, 6 B, 7 B, 1 R, 2 R, 3 R, 4 R, 6 R extra.**

As is well known the Alkali Blues produce the clearest blues on wool, so that they are often employed still for the dyeing of Berlin wool and worsted yarns for fancy woven goods, blankets, etc. as well as for the dyeing of pieces (costume cloth, flannel, etc.) If the Alkali Blues are intended for goods to stand washing and milling, the dyed material must be acidulated after milling, so as to brighten the shade again. For several qualities of goods the Brilliant Wool Blues on account of their more simple method of dyeing are preferred.

The Alkali Blues are very useful colours for the dyeing of silk, and they are also employed for the dyeing of half-woollen goods in one bath.

Benzidine Colours.

Chloramine Yellow M, Chrysophenine G, Thiazole Yellow G.

Chloramine Yellow M is the fastest to light of the three. Chrysophenine G is employed more than either of the other two; it also is possessed of very good fastness to light. All three colours stand milling as is generally required for blouses, costume cloth, flannels, table covers, etc. containing no white cotton checking threads, which latter are stained in the milling. These yellows are also used for the dyeing of shoddy, cotton, half-silk and half-woollen goods, and Chloramine Yellow M and Chrysophenine G also for the dyeing of silk-unions.

Benzo Fast Orange S, Benzo Orange R, Congo Orange G

dyed on wool are fast to milling, stoving and light. Benzo Fast Orange S is also distinguished for its brightness of shade. All three colours can be employed for the same class of goods as the above mentioned yellows. Benzo Fast Orange S is furthermore adapted for silk-unions.

***) Benzo Fast Red F C, GL, L, Benzo Fast Scarlet 4 B S, 5 B S, 8 B S, G S, Benzo Purpurine 1 B, 4 B, 6 B, 10 B, Brilliant Geranine B, Congo Red 4 R, Delta Purpurine 5 B, 7 B, Geranine G.**

These colours when dyed on wool are faster to washing than when dyed on cotton. They are extensively employed for the dyeing of yarns and loose wool, which have to stand washing or milling as well as for costume cloth, blouses, flannel and table-covers containing neither white nor pale shades on the cotton checking threads. Benzo Fast Red F C, after-treated with fluoride of chrome or bichrome is extremely fast to milling and when milled carefully scarcely tinges white cotton at all. These Reds are chiefly employed for the dyeing of cotton, half-wool, silk and half-silk, etc. Benzo Fast Red F C, Benzo Fast Scarlet 4 B S and Geranine G are also very well adapted for silk-unions.

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*) Those colours marked with an asterisk are also used for cotton and half-wool printing.

*) **Benzo Chrome Brown B, G, R, Pluto Brown GG, N B and R.**

Benzo Chrome Brown G is possessed of very good fastness to light, whereas the other brands in this respect will stand only ordinary requirements. They are sufficiently fast to milling to be used for flannels and table-covers. They are suited for wool yarn dyeing but are more important colours for the dyeing of cotton and half-woollen goods (half-woollen shoddy goods and costumes). Benzo Chrome Brown B, G and R and Pluto Brown R are very well adapted for silk-unions.

*) **Benzo Dark Green B**

is used for the dyeing of dark greens on silk-unions and the above mentioned class of goods.

*) **Benzo Azurine G and Brilliant Azurine 5 G**

are distinguished for their particularly bright shade possessed of good fastness to washing (on wool); they are used for the dyeing of clear blue shades on yarns, chiefly on cotton, half-wool, half-silk, etc.

*) **Benzo Fast Black**

dyes very easily level and is chiefly employed either in self shades or in combinations with the above mentioned colours for the production of greys and slates on cheviot yarns, the shades stand the ordinary washing test for worsted yarns.

Sulphon Colours.

*) Sulphon Yellow G and R

are distinguished for their excellent fastness to light and good fastness to milling, the direct dyed shades being even very fast to milling, and in this respect are almost on a par with Diamond Flavine after-treated with chrome. The „R" brand is perfectly fast to stoving, but the 5 G becomes redder, the original shade returning when treated with ammonia or soda.

The Sulphon Yellows are employed on account of their clear shades as substitutes for Flavine on yarns and piece goods (cloth for facings). They are also well adapted for the dyeing of loose wool or checking threads for blouses and gentlemen's suitings, flannels, table-covers, etc. They can also be dyed on a chrome mordant or after-chromed, whereby they are rendered somewhat duller in shade. They are also very useful colours for the dyeing of silk-unions and silk (fast to washing) and for half-woollen goods dyed in a neutral bath.

Sulphon Orange G

dyed simply in a slightly acid bath produces very clear orange shades of good fastness to washing and medium fastness to milling. It is employed for the dyeing of loose wool, slubbing and yarns for checking threads, table-covers, flannels, moltons, costume cloth as well as for silk-unions.

*) Anthracene Red

yields a bright red fast to stoving and washing. It is used for dyeing bright reds on slubbing, loose wool, yarns and piece goods.

*) Acid Anthracene Red 3 B and G

even when dyed direct are very fast to washing and milling along side white wool and cotton. The G brand is also very fast to stoving, the 3 B, however, becomes slightly yellower. As regards fastness to light they are on a par with the ordinary Ponceau or Scarlet brands.

These two colours are used for the dyeing of loose wool, slubbing and yarns for checking threads, for costume cloth fast to washing, flannels, table-covers, etc. as well as for silk-unions.

*) Those colours marked with an asterisk are also employed for wool printing.

***) Sulphon Azurine**

may be considered as the forerunner of the Sulphon Cyanines. The dyestuff yields bright, clear blues of fairly good fastness to light and good fastness to milling. It is employed for the dyeing of yarn and pieces, as well as for loose wool, which is intended for articles required to be moderately fast to milling. It is furthermore much employed for dyeing silk.

Sulphon Cyanine G, 3R, GR extra, 5R extra.

These dyestuffs are very fast to light and stand a very severe milling test without running into white, while their fastness to rubbing is excellent. They are furthermore fast to carbonisation, but not to stoving. The extra brands are about twice as strong as the single ones. The Sulphon Cyanines are employed for dyeing fast shades in almost all branches of wool dyeing, i. e. for the dyeing of loose wool, weaving and knitting yarns, for slubbing (in machines) and above all for pieces and garments. In consequence of their good fastness to light and the simple way of dyeing same, they are even preferred to Alizarine Blues for certain sorts of cloth for uniforms. These dyestuffs are used for shading the wool when dyeing half-woollen goods in one bath (dyed neutral), and they are also employed for the dyeing of silk and silk-unions.

Sulphon Acid Blue B, G, R

excell the above mentioned blues as regards fastness to light, but are considerably inferior in fastness to milling. For these reasons they are on the whole only used for piece dyeing (also containing white cotton checking threads) for the production of shades possessed of the highest possible fastness to light and wearing.

Jet Black G, R

dye easily level, respond to fairly high demands in fastness to milling and possess good fastness to light. These dyestuffs are either used alone or in combination with Sulphon Cyanines for the dyeing of knitting yarn and piece goods, for garment dyeing, as well as for silk-unions (wool and silk). Silk-unions are dyed a uniform shade.

Sulphon Black 3B, 4BT, G, R.

The R brand produces a reddish black, 3B and 4BT a similar blue-black to Logwood and the G a greenish black. They are not quite so fast to milling and light as the Sulphon Cyanines and are particularly employed for the dyeing of yarn and pieces (also for half-wool as combination products, and for rag dyeing).

Sulphon Cyanine Black B, 2B

are faster to milling than the last mentioned; their fastness to light is excellent, to alkalies and acids good, to steaming sufficient for moderate demands, to stoving insufficient. The colours are employed for the same purposes as Sulphon Black, and especially for the dyeing of knitting yarns also; they go on to the wool well in a neutral bath and are therefore very much used in combination with Benzidine colours for the dyeing of half-wool.

Alizarine and mordant colours dyed on a chrome mordant.

*)**Fast Printing Yellow 3 G, R, Anthracene Yellow paste, C, Chrome Yellow D, DF, R extra, Diamond Flavine G pdr., Diamond Yellow G paste.**

Anthracene Yellow Paste, which is also sold as H and W brands in 5 and 10 fold strengths, produces shades possessed of the best fastness to light and milling (by the side of white wool and cotton); on account of its high price, however, it is only employed in special cases, such as for the dyeing of silk, printing of slubbing, etc.

Anthracene Yellow C and Chrome Yellow R extra are cheap, very productive yellows, which are also fast to milling alongside white wool and cotton. As they do not dye easily level, it is best to dye with only a little acid.

Chrome Yellow D, DF and Diamond Flavine G are cheap products and, saving a very severe milling, are fast to milling alongside white wool; Diamond Flavine G and Chrome Yellow DF dye comparatively speaking very easily level. A similar fastness to washing is possessed by Diamond Yellow G, which product is faster to light than Fustic. Alizarine Yellow 3 G also dyes easily level, but is only moderately fast to milling. Alizarine Yellow R is but little employed on account of its reddish shade.

We would mention, that by after-treating with about 0.5 % bichrome, the fastness to milling of the previously chromed yellow is still more improved.

The products are universally used as a substitute for yellow-wood for the dyeing of loose wool, yarn and pieces, for, articles required to possess fast shades.

*) **Alizarine Orange R, Alizarine Red II A B paste, P S, Alizarine Red W** are often employed for the production of real madder shades on an alumina mordant. On a chrome mordant dark Bordeaux are obtained. They are also used either alone or as shading dyestuffs for dyeing loose material, yarn (which has to be fast to milling) and pieces. Alizarine Orange R and Alizarine Red II AB are employed for the dyeing of Turkey reds on cotton.

*) **Anthracene Red, Cloth Red B, 3 B extra, G, 3 G extra.**

When dyed on a chrome mordant, the dyestuffs are considerably faster to milling than in direct dyed shades, the fastness to light remaining the

*) Colours marked with an asterisk are also employed for printing cotton and wool.

same. They are adapted for dyeing reds on loose wool fast to milling, (alongside white) shoddy, as effect threads for gentlemen's and ladies' material, flannel, quilts, etc. The 3 G extra brand and Anthracene Red are the fastest to milling, and are therefore preferred in most cases to the other brands. The 3 G extra and 3 B extra are furthermore much employed for the dyeing of furniture plush, and they are very fast to ammonia. (For further particulars see „Alizarine and Mordant colours after-chromed").

***) Alizarine B X.**

The dyestuff yields very dark, reddish blues of good fastness to milling and light.

***) Alizarine Green C E, C G extra, C 3 G, C K, Diamond Green B, SS.**

The Alizarine Cyanine Greens are especially remarkable for their extraordinary fastness to light. They respond in fastness to milling to the claims made on worsted, Flannel, quilts, for articles which have to be moderately fast to milling, though by a severe milling the colour may bleed. They are of great value for the dyeing of piece goods (uniform cloth) by reason of their eminent fastness to light. The 3 G brand produces very bright, yellowish greens. The Diamond Greens are faster to milling, but are inferior in brightness of shade, as well as in fastness to light to the Alizarine Cyanine Greens; all the same they belong to the green dyestuffs possessed of the best fastness to light.

***) Alizarine Green S P**

is the oldest green mordant dyestuff of good fastness to milling and light. It is employed for the dyeing of all kinds of material required to be fast to milling (also alongside loose cotton) chiefly for olive shades, either alone or as a combination product.

Alizarine Blue double paste, R paste, S *).

The Alizarine Blues are the most important competitors of Indigo; they are absolutely fast to milling and acids, and show comparatively the best nitric acid test (Indigo). They are chiefly employed in dyeing loose wool for heavy material, which is desired to possess the highest possible fastness to light, wearing and rubbing. The R and S brands are also fast to milling alongside white cotton.

***) Alizarine Blue G II, H J, N F A, N S, N S G, N S V, B, B extra, A, 3 R X, W B, B R, II X.**

The Alizarine Cyanines are used to a much greater extent than the Alizarine Blues on account of their low price. They penetrate very well and dye very easily level, and are possessed of good fastness to milling, light, rubbing and wearing; they are largely employed for yarn and pieces (gentlemen's suitings). The dyestuffs are usually dyed on a chrome mordant, whereby extremely bloomy shades are obtained.

(see „Alizarine dyestuffs after-chromed"). The fastest blues to milling are obtained with the GG and WRR brands, and are thus mostly used for the dyeing of loose wool. We would mention that the fastness to milling of shades on previously mordanted material is still further improved by treating for 1/2 hour with 0.5 % bichrome.

*) Alizarine Blue SKY.

Alizarine Sky Blue B (see acid wool dyestuffs) can be advantageously dyed on a chrome mordant, and the shades obtained in this manner are faster to milling than the direct acid dyed ones.

*) Brilliant Alizarine Blue G, R.

These two dyestuffs excell the Alizarine Cyanines particularly in light shades as regards fastness to milling and light. Even when subjected to a severe milling they do not bleed into white wool or cotton and stand the carbonisation with sulphuric acid very well. The shades appear a bright blue by gas light. The Brilliant Alizarine Blues when tested with nitric acid give a similar spot to Indigo. They are employed for the dyeing of slubbing, loose wool, yarn and pieces, where especially good fastness to light is required (hats and cloth for uniforms).

*) Alizarine Blue BRG, BR3G

dye easily level and are largely and chiefly employed for the dyeing of slubbing and pieces. They are also very well adapted, especially on account of their comparatively easy level dyeing for the dyeing of yarn, as well as for loose wool intended for articles which have to be moderately fast to milling (such as is required for worsted yarn). The fastness to light of the shades is excellent.

Chrome Cyanine G, R, T.

The Chrome Cyanines are modern products, with which Navy-blues can be dyed on loose wool, yarn and pieces possessed of good fastness to milling, alkali, steaming and carbonisation. The fastness to light is good. It is worthy of notice that these dyestuffs dye easily even when after-chromed (see mordant colours after-chromed). The T brand is especially adapted for shading purposes, it dyes easily level and produces even in light shades (greys) very fast dyeings.

*) Celestine Blue B, Delphine Blue B, Gallamine Blue.

These dyestuffs are inferior to the real Alizarine dyestuffs and Brilliant Alizarine Blues in respect to fastness to light and rubbing and are accordingly employed for only second rate goods; their fastness to milling, however, is splendid. On account of their bright shades, they are employed for brightening loose wool, shoddy and piece goods. Delphine Blue B shows a similar Indigo test.

*) Gallein, Gallo Cyanine.

Gallocyanine dyes very easily level and is chiefly employed for the dyeing of woollen pieces. Both products possess moderate fastness to light and very good fastness to milling. Gallocyanine is also much employed for dark blues in combination with Indigo on account of its excellent level dyeing property.

*) Anthracene Brown G, GG, R, W.

The Anthracene Browns belong to the fastest Alizarine brown dyestuffs; they dye easily level on material previously chromed, are extraordinary fast to milling and light and resist a moderate steaming test. They are therefore serviceable for the dyeing of loose wool, shoddy, yarn and pieces (cloth for German and Austrian military) generally in combination with Diamond Flavine, Chrome Yellow etc.

*) Alizarine Black B, 3B.

The B brand especially is universally known; its level dyeing property is extraordinary, its fastness to light and milling excellent. They are the most important dyestuffs for fast fashion shades.

*) Alizarine Black IA

was the forerunner of Alizarine Blue Black B and yields deeper, greener and somewhat faster shades to milling than the latter. As it does not dye easily level, Alizarine Blue Black is usually preferred.

*) Alizarine Fast Black T paste, SP paste or pdr.

The T brand is chiefly used for blacks, whilst the SP is employed in place of Alizarine Blue Black in such cases where the production of grey shades is desired. The SP corresponds exactly as regards its properties to Alizarine Blue Black, the shade being somewhat duller and yellower. (see mordant dyestuffs after-chromed).

Alizarine and Mordant dyestuffs after-chromed.

***) Anthracene Yellow C, Chrome Yellow D, DF, R extra, Diamond Flavine G.**

The properties of these yellows have already been discussed in the part dealing with the Mordant dyestuffs on a Chrome mordant. It should be specially pointed out, that they are very well suited for after-chroming, and when fixed in this way, the shades are still faster to milling. They are adapted for combinations with Acid Anthracene Brown and Alizarine Blue Black, etc. for the production of shades extremely fast to milling and light.

***) Alizarine Orange R, Alizarine Red PS, W, Anthracene Red, Acid Anthracene Red 3B, G, Cloth Red B, 3B extra, G, 3G extra.**

These colours are either employed dyed alone or in combinations for the dyeing of fast shades on all kinds of woollen material. Alizarine Orange R (after-treated with 3% zinc sulphate, also fast to milling alongside white cotton) and the Alizarine Reds are chiefly used as combination products, Anthracene Red and Cloth Red for self-shades, the same with Acid Anthracene Red 3 B and G; the shade of the G brand is altered most by an after-treatment with bichrome, the 3 B only changing slightly. Deserving of notice is that the Acid Anthracene Red, even when submitted to a comparatively severe milling test, does not or but very trifling bleed into white cotton. Alizarine Orange R, Alizarine Red PS and W, as well as Cloth Red P and G, yield shades very fast to light.

***) Alizarine Green C E, C G extra, C3G, CK, Diamond Green SS.**

Of these dyestuffs the 3G brand, also when after-chromed, is remarkable for its bright shade; the properties are the same as when dyed on a chrome mordant. Diamond Green SS is chiefly used as a combination product.

***) Alizarine Blue BBS, H J, A, NS, NSG, BR, WRS, Alizarine Blue Sky, Alizarine Blue B R G, BR3G.**

Alizarine Cyanine BBS and WRS are only after-treated with fluoride of chrome, as when useing bichrome the shade is turned very much to the green side. The other brands are usually after-treated with bichrome.

Alizarine Sky Blue B is remarkable on account of its very bright shade and excellent level dyeing property. Its fastness to milling is on a par with moderate demands. (See also that stated on „Mordant dyestuffs dyed on a chrome mordant.")

*) Colours marked with an asterisk are also employed for printing cotton and wool.

***) Brilliant Alizarine Blue G, R**

are only after-treated with fluoride of chrome or chrome alum; when working with bichrome the shade undergoes too great a change (re properties see that stated under „Mordant dyestuffs dyed on a chrome mordant").

Chrome Cyanine G, R, T

(see under Mordant dyestuffs dyed on a chrome mordant). After-chromed shades come out darker, and their fastness to milling and perspiration is better than when dyed on a chrome mordant.

Diamond Blue 3B, R.

The Diamond Blues play an important part in the dyeing of cheap Navy-blues fast to light on material for gentlemen's suitings. On account of their good fastness to milling they are also largely employed for the dyeing of loose wool, slubbing and yarn (weaving and knitting yarns). Neither colour tinges cotton checking threads, the R brand also leaves silk effects untouched.

□ ***) Acid Anthracene Brown G, R, T, W, V, V T, Acid Chrome Brown T**

are only employed for dyeing in the first bath and are use for dyeing loose wool, yarn and pieces, for articles which have to be fast to milling and light. They are mixed, according to the shade desired, with yellow and other dyestuffs. The G brands responds to moderate requirements as regards fastness to light; the other brands are remarkable for their extraordinary fastness to light.

When dyeing with Acid Anthracene Brown G or Acid Chrome Brown T it is advisable to add less acid than is necessary for the other brands.

***) Alizarine Black B, 3B, Alizarine Fast Black SP paste or powder.**

These blacks are principally employed for shading purposes, since, besides possessing very good properties, they dye extremely easily level. Deserving of notice is their trifling affinity to chrome, so that small deviations in the addition of bichrome scarcely causes an alteration in the shades. Alizarine Fast Black SP can be used to advantage for dark shades.

⁂ *) Diamond Black 2B, F, FB, FR, GA, NG, NR, ST.

The best known brands are the F, FB, NG and GA, which are extraordinary fast to milling, acids and light. They are not only employed for the dyeing of loose wool and slubbing for melanges, knitting and weaving yarns (fancy woven goods) for Ladies' dress material and gentlemen's suitings, but also for superior quality pieces and cloth for military purposes. The colours do not run into white wool even when severely milled; alongside white cotton and silk, the dyestuff is equal to moderate demands; if high demands are made the Diamond Black P brands should be employed. All the brands are fast to carbonisation and will stand a moderate steaming test very well.

†† Diamond Black PV, PVB, P2B

are very important for the dyeing of wool and are chiefly distinguished from the aforementioned, in that they are fast to potting (scouring in hot water) alongside white wool, cotton (also mercerised) and silk. They are furthermore excellently fast to milling, steaming, cross-dyeing, and light; in the last respect the shade of the P2B is particularly fast.

These Diamond Blacks, as the afore-mentioned, are likewise employed for the dyeing of loose wool, slubbing, yarn and pieces, in all cases where great importance is attached to excellent fastness. We would mention that the PV and P2V brands are best suited for cross-dyeing, and for selvedges in white pieces or for striped flannel, which has to be dyed in the piece. (We refer you to our special card with full details No. 1188, 1905).

Acid Chrome Black B*), G*), *) RH, WS 23250, TC.

The Acid Chrome Blacks are employed for dyeing loose wool, slubbing and yarn which have to be fast to washing and milling, but they are chiefly demanded for the dyeing of gentlemen' suitings containing cotton effects, where perfect fastness to perspiration is desired.

The WS brand 23250 is particularly well adapted for piece goods containing white silk effects, which remain a comparatively good white.

Without guarantee.

Acid Colours.

† 0,75 %
Chinoline Yellow

2 %
Chinoline Yellow

† 0,75 %
Fast Yellow extra

† 2 %
Fast Yellow extra

† 0,75 % Fast Light
Yellow G

† 2 % Fast Light
Yellow G

† 0,75 % Fast Light
Yellow 2 G

† 2 % Fast Light
Yellow 2 G

† 0,75 % Fast Light
Yellow 3 G

† 2 % Fast Light
Yellow 3 G

† 0,75 %
Indian Yellow G

† 2 %
Indian Yellow G

† 0,75 %
Indian Yellow R

† 2 %
Indian Yellow R

1 %
Metanil Yellow

2,5 %
Metanil Yellow

† 0,75 %
Naphtol Yellow S

† 2 %
Naphtol Yellow S

0,5 % New Yellow
extra

1,5 % New Yellow
extra

† 0,5 %
Tartrazine

† 1,5 %
Tartrazine

1 %
Croceine Orange G

2,5 %
Croceine Orange G

Acid Colours.

1 %
Croceine Orange R

2,5 %
Croceine Orange R

† 1 % Fast Light
Orange G

† 2,5 % Fast Light
Orange G

† 0,75 %
Mandarine G

† 2,5 %
Mandarine G

† 1 %
Orange II B

† 2,5 %
Orange II B

† 1 %
Orange R O

† 2,5 %
Orange R O

1 %
Azo Bordeaux

2,5 %
Azo Bordeaux

1 %
Azo Cochineal

2,5 %
Azo Cochineal

1 %
Azo Eosine

2,5 %
Azo Eosine

† 1 %
Azo Fuchsine 6 B

† 2,5 %
Azo Fuchsine 6 B

† 1 %
Azo Fuchsine G

† 2,5 %
Azo Fuchsine G

† 1 %
Azo Fuchsine S

† 2,5 %
Azo Fuchsine S

† 1 %
Azo Crimson S

† 3 %
Azo Crimson S

Acid Colours.

† 1 %
Azo Phloxine 2G

† 3 %
Azo Phloxine 2 G

1 % Brilliant
Croceine 3B

2,5 % Brilliant
Croceine 3 B

1 % Brilliant
Double Scarlet 3R

2,5 % Brilliant
Double Scarlet 3 R

1 %
Carmoisine B

2,5 %
Carmoisine B

1 % Cochineal
Scarlet PS

2,5 % Cochineal
Scarlet P S

1 % Croceine
Scarlet 1 B X

2,5 % Croceine
Scarlet 1 B X

1 % Croceine
Scarlet 2 B X

2,5 % Croceine
Scarlet 2 B X

1 % Croceine
Scarlet 3 B X

2,5 % Croceine
Scarlet 3 B X

1% Croceine
Scarlet R

2 5 % Croceine
Scarlet R

1 % Croceine
Scarlet R X

2,5 % Croceine
Scarlet R X

0,5 %
Double Ponceau 1R

1,5 %
Double Ponceau 1 R

0,5 %
Double Ponceau 2R

1,5 %
Double Ponceau 2R

Acid Colours.

0,5 %
Double Ponceau 3 R

1,5 %
Double Ponceau 3 R

0,5 %
Double Ponceau 4 R

1,5 %
Double Ponceau 4 R

1 %
Fast Red A

2,5 %
Fast Red A

1 %
Fast Red E

2,5 %
Fast Red E

1,5 %
Fast Red NS

4 %
Fast Red NS

† 1 % Fast Acid
Magenta B

† 2 % Fast Acid
Magenta B

0,25 %
Eosine I bluish

1 %
Eosine I bluish

0,25 % Eosine I
yellow shade

1 % Eosine I
yellow shade

0,25 % Eosine S
extra bluish

1 % Eosine S
extra bluish

0,25 % Eosine S
extra yellow shade

1 % Eosine S
extra yellow shade

1 %
New Red 3 R

2,5 %
New Red 3 R

1 %
New Red 5 R

2,5 %
New Red 5 R

Acid Colours.

0,5 %
Ponceau H P

1,5 %
Ponceau H P

1 %
Ponceau I R

2,5 %
Ponceau I R

1 %
Ponceau 2 R

2,5 %
Ponceau 2 R

1 %
Ponceau 3 R

2,5 %
Ponceau 3 R

1 %
Ponceau 2 R L

2,5 %
Ponceau 2 R L

† 0,25 %
Rhodamine B

† 1 %
Rhodamine B

† 0,25 %
Rhodamine G

† 1 %
Rhodamine G

1 %
Imperial Scarlet 3 B

2,5 %
Imperial Scarlet 3 B

1 %
Scarlet R

2,5 %
Scarlet R

1 %
Acid Magenta

2,5 %
Acid Magenta

† 1,5 % Alkali Fast
Green B

† 4 % Alkali Fast
Green B

† 1,5 % Alkali Fast
Green 3 B

† 4 % Alkali Fast
Green 3 B

Acid Colours.

† 1,5 % Alkali Fast Green G

† 4 % Alkali Fast Green G

† 1,5 % Alkali Fast Green 3 G

† 4 % Alkali Fast Green 3 G

† 1,5 % Brilliant Acid Green 6 B

† 4 % Brilliant Acid Green 6 B

† 1,5 % Fast Green bluish

† 4 % Fast Green bluish

1,5 % Fast Green extra

4 % Fast Green extra

† 1,5 % Fast Green extra bluish

† 4 % Fast Green extra bluish

1,5 % Fast Green C R

4 % Fast Green C R

† 1,5 % Fast Light Green

† 4 % Fast Light Green

1,5 % Parrot Green

4 % Parrot Green

1,5 % Acid Green B B

4 % Acid Green B B

1,5 % Acid Green 3 B

4 % Acid Green 3 B

1,5 % Acid Green 6 B

4 % Acid Green 6 B

Acid Colours.

1,5 % Acid Green GB extra

4 % Acid Green GB extra

1,5 % Acid Green GG extra

4 % Acid Green GG extra

† 1,5 % Wool Green BS

† 4 % Wool Green BS

† 1 % Alizarine Blue AS

† 3 % Alizarine Blue AS

1 % Alizarine Emeraldole G

3 % Alizarine Emeraldole G

† 1 % Alizarine Blue SAP

† 3 % Alizarine B'ue SAP

† 1 % Alizarine Blue SAC

† 3 % Alizarine Blue SAC

† 1 % Alizarine Blue SAE

† 3 % Alizarine Blue SAE

† 1,5 % Anthra Cyanine BL

† 4 % Anthra Cyanine BL

† 1,5 % Anthra Cyanine DL

† 4 % Anthra Cyanine DL

† 1,5 % Anthra Cyanine FL

† 4 % Anthra Cyanine FL

† 1,5 % Anthra Cyanine 3FL

† 4 % Anthra Cyanine 3FL

Acid Colours.

† 1 % Azo Acid Blue 6 B

† 3 % Azo Acid Blue 6B

1 % Alizarine Blue BR3G

3 % Alizarine Blue BR3G

1 % Brilliant Wool Blue B extra

3 % Brilliant Wool Blue B extra

1 % Brilliant Wool Blue G extra

3 % Brilliant Wool Blue G extra

† 1 % Fast Acid Blue B

† 3 % Fast Acid Blue B

† 0,75 % Intensive Blue

† 2 % Intensive Blue

† 0,5 % Cashmere Blue TG extra

† 1,5 % Cashmere Blue TG extra

1 % Navy Blue

3 % Navy Blue

1 % New Patent Blue B

3 % New Patent Blue B

† 1 % New Patent Blue 4B

† 3 % New Patent Blue 4B

† 1 % New Patent Blue GA

† 3 % New Patent Blue G A

0,75 % Red Blue extra conc.

2 % Red Blue extra conc.

Acid Colours.

†1,5 % Victoria Navy Blue B	1 % Wool Fast Blue BL
†4 % Victoria Navy Blue B	3 % Wool Fast Blue BL
†1,5 % Victoria Navy Blue DK	† 1 % Alizarine Blue IR
†4 % Victoria Navy Blue DK	† 3 % Alizarine Blue IR
1 % Soluble Blue I green shade	1 % Alkali Violet R
3 % Soluble Blue I green shade	3 % Alkali Violet R
1 % Wool Blue N extra	1 % Alkali Violet LR
3 % Wool Blue N extra	3 % Alkali Violet LR
1 % Wool Blue R extra	†1 % Azo Acid Violet AL
3 % Wool Blue R extra	† 3 % Azo Acid Violet AL
1 % Wool Blue SR extra	† 1 % Azo Acid Violet B extra
3 % Wool Blue SR extra	† 3 % Azo Acid Violet B extra

Farbenfabriken vorm. Friedr. Bayer & Co., Elberfeld.

Acid Colours.

† 1 % Azo Acid Violet R extra

† 3 % Azo Acid Violet R extra

† 1 % Azo Acid Violet 4 R

† 3 % Azo Acid Violet 4 R

† 1 % Fast Acid Violet 10 B

† 3 % Fast Acid Violet 10 B

1 % Acid Violet BW

3 % Acid Violet BW

† 1 % Acid Violet 3 B extra

† 3 % Acid Violet 3B extra

1 % Acid Violet 4 B extra

3 % Acid Violet 4 B extra

1 % Acid Violet 5 B

3 % Acid Violet 5 B

1 % Acid Violet 6 B N extra

3 % Acid Violet 6 B N extra

1 % Acid Violet 8 B extra

3 % Acid Violet 8 B extra

1 % Acid Violet H W

3 % Acid Violet H W

1 % Acid Violet 3 R

3 % Acid Violet 3R

1 % Acid Violet 4 R S

3 % Acid Violet 4 R S

Farbenfabriken vorm. Friedr. Bayer & Co., Elberfeld.

Acid Colours.

1 % Victoria Violet 4 B S

3 % Victoria Violet 4 B S

† 1,5 % Cashmere Brown V

† 4 % Cashmere Brown V

† 6 % Cashmere Black B

† 7 % Cashmere Black 6 B

† 5 % Cashmere Black 3 B N

† 7 % Cashmere Black T

† 5 % Cashmere Black T N

7% Naphthaline Acid Black 4 B

5 % Naphtylamine Black 4 B

5 % Naphtylamine Black 4 B K

5 % Naphtylamine Black 6 B

5 % Naphtylamine Black S

6,5 % New Victoria Black Blue

6,5 % Phenylamine Black 4 B

6,5 % Phenylamine Black T

7 % Acid Black 5 B

7 % Acid Black 8 B

7 % Acid Black 4 B L

7 % Acid Black F L

7 % Acid Black L D

6,5 % Victoria Black B

6,5 % Victoria Black Blue

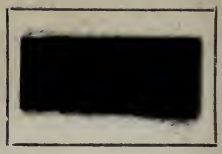
Farbenfabriken vorm. Friedr. Bayer & Co., Elberfeld.

Acid Colours.

6,5 %
Wool Black B

6,5 %
Wool Black 4B

6,5 %
Wool Black N4B



Basic Colours.

0,5 %
Auramine II

2 %
Auramine II

0,5 %
Chrysoidine cryst.

2 %
Chrysoidine cryst.

1 %
Bismarck Brown F

2,5 %
Bismarck Brown F

1 % Bismarck
Brown R extra

2,5 % Bismarck
Brown R extra

0,75 % Brilliant
Rhoduline Red B

2,5 % Brilliant
Rhoduline Red B

0,3 % Diamond
Fuchsine cryst.

0,8 % Diamond
Fuchsine cryst.

0,75 %
Rhoduline Red B

2,5 %
Rhoduline Red B

0,75 %
Rhoduline Red G

2,5 %
Rhoduline Red G

Basic Colours.

0,75 %
Saffranine FF extra

2,5 %
Saffranine FF extra

0,5 % Brilliant
Green cryst.

2 % Brilliant
Green cryst.

0,5 %
China Green cryst.

2 %
China Green cryst.

0,25 % New
Victoria Blue B

1 % New
Victoria Blue B

0,25 %
Victoria Blue B

1 %
Victoria Blue B

4 %
Nigrosine B

4 %
Nigrosine G

0,3 %
Crystal Violet P

0,8 %
Crystal Violet P

0,3 %
Methyl Violet 1 B

0,8 %
Methyl Violet 1 B

0,3 %
Methyl Violet 2 B

0,8 %
Methyl Violet 2 B

0,3 %
Methyl Violet 3 B

0,8 %
Methyl Violet 3 B

0,3 %
Methyl Violet 4 B

0,8 %
Methyl Violet 4 B

0,3 %
Methyl Violet 5 B

0,8 %
Methyl Violet 5 B

Basic Colours.

0,3 %
Methyl Violet 6 B

0,8 %
Methyl Violet 6 B

0,3 %
Methyl Violet 7 B

0,8 %
Methyl Violet 7 B

0,3 %
Methyl Violet 1 R

0,8 %
Methyl Violet 1 R

0,3 %
Methyl Violet 2 R

0,8 %
Methyl Violet 2 R

0,3 %
Methyl Violet 3 R

0,8 %
Methyl Violet 3 R

0,3 %
Methyl Violet 4 R

0,8 %
Methyl Violet 4 R

0,3 %
Methyl Violet 5 R

0,8 %
Methyl Violet 5 R

1 %
Rhoduline Violet

2,5 %
Rhoduline Violet

Alkali Blues.

0,8 %
Alkali Blue 1 B

2 %
Alkali Blue 1 B

0,6 %
Alkali Blue 2 B

1,5 %
Alkali Blue 2 B

0,5 %
Alkali Blue 3 B

1,2 %
Alkali Blue 3 B

0,5 %
Alkali Blue 4 B

1,2 %
Alkali Blue 4 B

0,3 %
Alkali Blue 5 B

0,75 %
Alkali Blue 5 B

0,2 %
Alkali Blue 6 B

0,5 %
Alkali Blue 6 B

0,2 %
Alkali Blue 7 B

0,5 %
Alkali Blue 7 B

0,9 %
Alkali Blue 1 R

2,25 %
Alkali Blue 1 R

1 %
Alkali Blue 2 R

2,5 %
Alkali Blue 2 R

1,2 %
Alkali Blue 3 R

3 %
Alkali Blue 3 R

1,2 %
Alkali Blue 4 R

3 %
Alkali Blue 4 R

0,8 % Alkali Blue
6 R extra

2 % Alkali Blue
6 R extra

Benzidine Colours.

2 % Chloramine Yellow M

1 % Chrysophenine G

2 % Thiazole Yellow G

2 % Benzo Fast Orange S

2 % Benzo Orange R

2 % Congo Orange G

2 % Benzo Fast Red F C

2 % Benzo Fast Red G L

2 % Benzo Fast Red L

2 % Benzo Fast Scarlet 4 B S

2 % Benzo Fast Scarlet 5 B S

2 % Benzo Fast Scarlet 8 B S

2 % Benzo Fast Scarlet G S

2 % Benzo Purpurine 1 B

2 % Benzo Purpurine 4 B

2 % Benzo Purpurine 6 B

2 % Benzo Purpurine 10 B

2 % Brilliant Geranine B

2 % Congo Red

2,5 % Congo Red 4 R

2 % Delta Purpurine 7 B

2 % Delta Purpurine 5 B

2 % Geranine G

2,5 % Benzo Chrome Brown B

Benzidine Colours.

2,5 % Benzo Chrome Brown G

2,5 % Benzo Chrome Brown R

2,5 % Pluto Brown GG

2,5 % Pluto Brown NB

2,5 % Pluto Brown R

2 % Benzo Dark Green B

4 % Benzo Azurine G

4 % Brilliant Azurine 5G

1 % Benzo Fast Black

Sulphon Colours.

1 % Sulphon Yellow 5G

1 % Sulphon Yellow R

2 % Sulphon Orange G

2 % Anthracene Red

2 % Acid Anthracene Red 3B

2 % Acid Anthracene Red G

4 % Sulphon Azurine

3 % Sulphon Cyanine G

3 % Sulphon Cyanine 3R

2 % Sulphon Cyanine GR extra

Sulphon Colours.

2 % Sulphon Cyanine 5 R extra

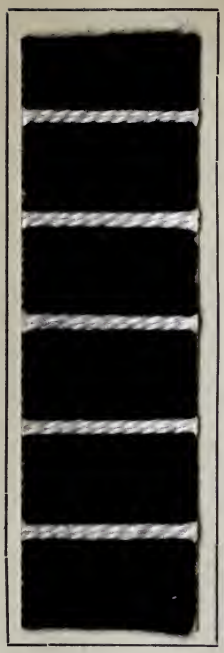
3 % Sulphon Acid Blue B

3 % Sulphon Acid Blue G

3 % Sulphon Acid Blue R

6 % Jet Black G

6 % Jet Black R



5 % Sulphon Black 3 B

5 % Sulphon Black 4 B T

5 % Sulphon Black G

5 % Sulphon Black R

7 % Sulphon Cyanine Black B

7 % Sulphon Cyanine Black 2 B

Alizarine and Mordant Colours on a chrome mordant.

2 % Fast Printing Yellow 3 G

1 % Fast Printing Yellow R

20 % Anthracene Yellow paste

2 % Anthracene Yellow C

2 % Chrome Yellow D

2 % Chrome Yellow D F

2 % Chrome Yellow R extra

2 % Diamond Flavine G

10 % Diamond Yellow G paste

2 % Alizarine Orange R

Alizarine and Mordant Colours on a chrome mordant.

8% Alizarine Red IIAB paste

2% Alizarine Red PS

2% Alizarine Red W

3% Anthracene Red

3% Cloth Red B

3% Cloth Red 3B extra

3% Cloth Red G

3% Cloth Red 3G extra

2% Alizarine BX

2% Alizarine Green CE

2% Alizarine Green CG extra

2% Alizarine Green C3G

2% Alizarine Green CK

2% Diamond Green B

2% Diamond Green SS

2% Aliz. Green S

10% Alizarine Blue GWDS paste

8% Alizarine Blue R paste

2% Alizarine Blue S

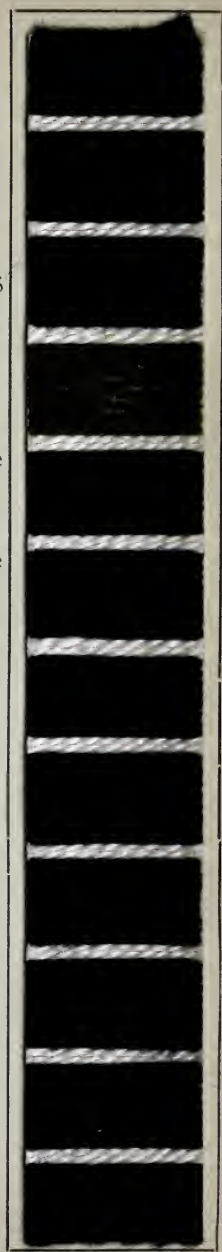
2% Alizarine Blue GII

2% Alizarine Blue HJ

2% Alizarine Blue NFA

2% Alizarine Blue NS

2% Alizarine Blue NSG



Farbenfabriken vorm. Friedr. Bayer & Co., Elberfeld.

Alizarine and Mordant Colours on a chrome mordant.

2 % Alizarine Blue NSV

2 % Alizarine Blue B

10 % Alizarine Blue B extra paste

2 % Alizarine Blue A

4 % Alizarine Blue 3RX paste

10 % Alizarine Blue WB paste

2 % Alizarine Blue BR

2 % Alizarine Blue IIX

1 % Alizarine Blue SKY

2 % Brilliant Alizarine Blue G

2 % Brilliant Alizarine Blue R

2 % Alizarine Blue BRG

2 % Alizarine Blue BR3G

2 % Chrome Cyanine G

2 % Chrome Cyanine R

1 % Chrome Cyanine T

2 % Celestine Blue B

2 % Delphine Blue B

2 % Gallamine Blue

1,5 % Galleine

2 % Gallo Cyanine

3 % Anthracene Brown G

3 % Anthracene Brown GG

3 % Anthracene Brown R

Farbenfabriken vorm. Friedr. Bayer & Co., Elberfeld.

Alizarine and Mordant Colours on a chrome mordant.

3%
Anthracene Brown W

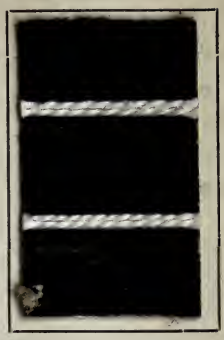
1% Alizarine
Black B

1% Alizarine
Black 3B

20% Alizarine
Black 1A paste

20% Alizarine Fast
Grey paste

4% Alizarine Fast
Black SP paste



Alizarine and Mordant Colours after-chromed.

2% Anthracene
Yellow C
1% bichrome

2% Chrome
Yellow D
1% bichrome

2% Chrome
Yellow DF
1% bichrome

2% Chrome Yellow
R extra
1% bichrome

2% Diamond
Flavine G
1% bichrome

2% Alizarine
Orange R
1% bichrome

2% Alizarine
Red PS
0,5% bichrome

2% Alizarine Red W
1% bichrome

3% Anthracene
Red
1,5% bichrome

3% Acid Anthra-
cene Red 3B
1,5% bichrome

3% Acid Anthra-
cene Red G
1,5% bichrome

3% Cloth Red B
1,5% bichrome

3% Cloth Red
3B extra
1,5% bichrome

3% Cloth Red G
1,5% bichrome

3% Cloth Red
3G extra
1,5% bichrome

2% Alizarine
Green CE
1% bichrome

Alizarine and Mordant Colours after-chromed.

2% Alizarine Green CG extra
1% bichrome

2% Alizarine Green C3G
1% bichrome

2% Alizarine Green CK
1% bichrome

2% Diamond Green SS
1% bichrome

2% Alizarine Blue BBS
2% fluoride of chrome

2% Alizarine Blue H.J
1% bichrome

2% Alizarine Blue A
1% bichrome

2% Alizarine Blue NS
1% bichrome

2% Alizarine Blue NSG
1% bichrome

2% Alizarine Blue BR
1% bichrome

2% Alizarine Blue HX
1% bichrome

2% Alizarine Blue WRS
2% fluoride of chrome

1% Alizarine Blue SKY
0,5% bichrome

2% Brilliant Alizarine Blue G
2% fluoride of chrome

2% Brilliant Alizarine Blue R
2% fluoride of chrome

2% Alizarine Blue BRG
1% bichrome

2% Alizarine Blue BR3G
1% bichrome

2% Chrome Cyanine G
1% bichrome

2% Chrome Cyanine R
1% bichrome

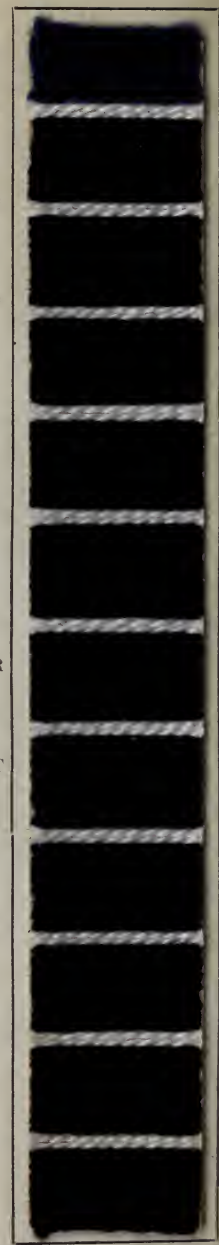
1% Chrome Cyanine T
0,5% bichrome

2% Diamond Blue 3 B
1,5% bichrome

2% Diamond Blue R
1,5% bichrome

3% Acid Anthracene Brown G
1,5% bichrome

3% Acid Anthracene Brown R
1,5% bichrome



Farbenfabriken vorm. Friedr. Bayer & Co., Elberfeld.

Alizarine and Mordant Colours after-chromed.

3% Acid Anthracene Brown T
1,5% bichrome

3% Acid Anthracene Brown W
1,5% bichrome

3% Acid Anthracene Brown V
1,5% bichrome

3% Acid Anthracene Brown VT
1,5% bichrome

3% Acid Anthracene Brown T
1,5% bichrome

1% Alizarine Black B
0,5% bichrome

1% Alizarine Black 3B
0,5% bichrome

4% Alizarine Fast Black SP paste
0,5% bichrome

5% Diamond Black 2B
1% bichrome

5% Diamond Black F
1% bichrome

5% Diamond Black FB
1% bichrome

5% Diamond Black FR
1% bichrome

5% Diamond Black GA
1% bichrome

5% Diamond Black NG
1% bichrome

5% Diamond Black NR
1% bichrome

5% Diamond Black ST
1% bichrome

8% Diamond Black PV
2,5% bichrome

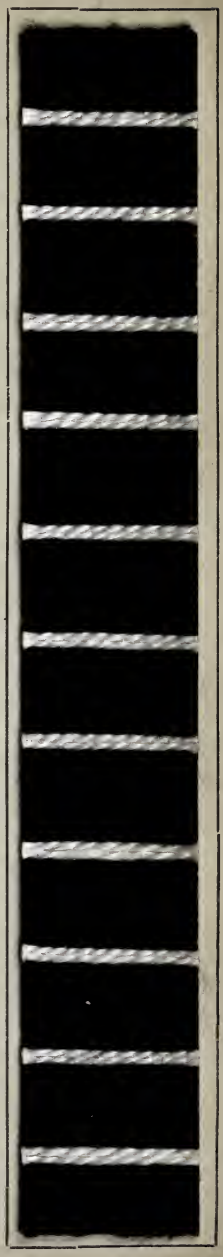
8% Diamond Black PVB
2,5% bichrome

8% Diamond Black P2B
2,25% bichrome

6% Acid Chrome Black B
1,5% bichrome

6% Acid Chrome Black G
2,5% bichrome

6% Acid Chrome Black RH
2,5% bichrome

6% Acid Chrome Black WS 23250
2% bichrome

6% Acid Chrome Black TC
1% bichrome